1	CLAIMS
2	What is claimed is:
3	
4	Claim 1. A biopolymer marker selected from the group
5	consisting of sequence ID RHHPEHFSGRPRE, RIRHHPEHFSGRPRE,
6	RITGIIKYEKPGSPPRE, (R) VDVIPVNLPGEHGQR(L) or at least one
7	analyte thereof useful in indicating at least one
8	particular disease state.
9	
10	Claim 2. The biopolymer marker of claim 1 wherein
11	said disease state is predictive of Alzheimers disease.
12	
13	Claim 3. A method for evidencing and categorizing at
14	least one disease state comprising:
15	obtaining a sample from a patient;
16	conducting mass spectrometric analysis on said
17	sample;
18	evidencing and categorizing at least one biopolymer
19	marker sequence or analyte thereof isolated from said
20	sample; and,
21	comparing said at least one isolated biopolymer
22	marker sequence or analyte thereof to the biopolymer
23	marker sequence as set forth in claim 1;

wherein correlation of said isolated biopolymer

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1 marker and said biopolymer marker sequence as set forth in 2 claim 1 evidences and categorizes said at least one 3 disease state. 4 5 Claim 4. The method of claim 3, wherein said step 6 of evidencing and categorizing is particularly directed to 7 biopolymer markers or analytes thereof linked to at least 8 one risk of disease development of said patient. 9 10 Claim 5. The method of claim 3, wherein said step of evidencing and categorizing is particularly directed to 11 12 biopolymer markers or analytes thereof related to the 13 existence of a particular disease state. 14 15 Claim 6. The method of claim 3, wherein the sample 16 is an unfractionated body fluid or a tissue sample. 17 18 19 Claim 7. The method of claim 3, wherein said sample 20 is at least one of the group consisting of blood, blood 21 products, urine, saliva, cerebrospinal fluid, and lymph. 22 23 Claim 8. The method of claim 3, wherein said mass 24 spectrometric analysis is selected from the group

1 consisting of Surface Enhanced Laser Desorption Ionization 2 (SELDI) mass spectrometry (MS), Maldi Qq TOF, MS/MS, TOF-TOF, and ESI-Q-TOF or an ION-TRAP. 3 4 5 Claim 9. The method of claim 3, wherein said patient is a human. 6 7 8 Claim 10. A diagnostic assay kit for determining 9 the presence of the biopolymer marker or analyte thereof 10 of claim 1 comprising: at least one biochemical material which is capable of 11 ① ② 12 specifically binding with a biomolecule which includes at **4** 13 least said biopolymer marker or analyte thereof, and 14 means for determining binding between said 15 biochemical material and said biomolecule; W 16 whereby at least one analysis to determine a presence **17** of a marker, analyte thereof, or a biochemical material 18 specific thereto, is carried out on a sample. 19 20 The diagnostic assay kit of claim 10, Claim 11. 21 wherein said biochemical material or biomolecule is 22 immobilized on a solid support. 23 24 Claim 12. The diagnostic assay kit of claim 10

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1	including:
2	at least one labeled biochemical material.
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4	Claim 13. The diagnostic assay kit of claim 10,
5	wherein said biochemical material is an antibody.
6	
7	Claim 14. The diagnostic assay kit of claim 12,
8	wherein said labeled biochemical material is an antibody.
9	
10	Claim 15. The diagnostic assay kit of claim 10,
11	wherein the sample is an unfractionated body fluid or a
12	tissue sample.
13	
14	Claim 16. The diagnostic assay kit of claim 10,
15	wherein said sample is at least one of the group
16	consisting of blood, blood products, urine, saliva,
17	cerebrospinal fluid, and lymph.
18	
19	Claim 17. The diagnostic assay kit of claim 10,
20	wherein said biochemical material is at least one
21	monoclonal antibody specific therefore.
22	
23	Claim 18. A kit for diagnosing, determining risk-
24	assessment, and identifying therapeutic avenues related to

The kit of claim 20, wherein said labeled

Claim 22.

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a disease state comprising:

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1	biochemical material is an antibody.
2	
3	Claim 23. The kit of claim 18, wherein the sample is
4	an unfractionated body fluid or a tissue sample.
5	
6	Claim 24. The kit of claim 18, wherein said sample
7	is at least one of the group consisting of blood, blood
8	products, urine, saliva, cerebrospinal fluid, and lymph.
9	
10	Claim 25. The kit of claim 18, wherein said
11	biochemical material is at least one monoclonal antibody
12	specific therefore.
13	
14	Claim 26. The kit of claim 18, wherein said
15	diagnosing, determining risk assessment, and identifying
16	therapeutic avenues is carried out on a single sample.
17	
18	Claim 27. The kit of claim 18, wherein said
19	diagnosing, determining risk assessment, and identifying
20	therapeutic avenues is carried out on multiple samples
21	such that at least one analysis is carried out on a first
22	sample and at least another analysis is carried out on a
23	second sample.

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             Claim 28. The kit of claim 27, wherein said first
   2
        and second samples are obtained at different time periods.
   3
   4
             Claim 29. Polyclonal antibodies produced against a
   5
        marker selected from the group consisting of sequence ID
   6
        RHHPEHFSGRPRE, RIRHHPEHFSGRPRE, RITGIIKYEKPGSPPRE,
   7
        (R) VDVIPVNLPGEHGQR(L) or an analyte thereof in at least
   8
        one animal host.
   9
  10
             Claim 30. An antibody that specifically binds a
        biopolymer including a marker selected from the group
  11
12 12
        consisting of sequence ID RHHPEHFSGRPRE, RIRHHPEHFSGRPRE,
型
13
        RITGIIKYEKPGSPPRE, (R) VDVIPVNLPGEHGQR(L) or at least one
  14
        analyte thereof.
15
4 16
             Claim 31. The antibody of claim 30 that is a
H 17
        monoclonal antibody.
  18
  19
             Claim 32. The antibody of claim 30 that is a
  20
        polyclonal antibody.
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  22
             Claim 33. A process for identifying therapeutic
  23
        avenues related to a disease state comprising:
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conducting an analysis as provided by the kit of

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1 claim 18; and 2 interacting with a biopolymer selected from the group 3 consisting of sequence ID RHHPEHFSGRPRE, RIRHHPEHFSGRPRE, RITGIIKYEKPGSPPRE, (R) VDVIPVNLPGEHGQR(L) or at least one 4 5 analyte thereof; 6 whereby therapeutic avenues are developed. 7 8 Claim 34. The process for identifying therapeutic 9 avenues related to a disease state in accordance with 10 claim 33, wherein said therapeutic avenues regulate the 11 presence or absence of the biopolymer selected from the group consisting of sequence ID RHHPEHFSGRPRE, RIRHHPEHFSGRPRE, RITGIIKYEKPGSPPRE, (R) VDVIPVNLPGEHGQR(L) 14 or at least one analyte thereof. Claim 35. The process for identifying therapeutic **17** avenues related to a disease state in accordance with 18 claim 33, wherein said therapeutic avenues developed 19 include at least one avenue selected from a group 20 consisting of 1)utilization and recognition of said 21 biopolymer markers, variants or moieties thereof as direct 22 therapeutic modalities, either alone or in conjunction 23 with an effective amount of a pharmaceutically effective

carrier; 2) validation of therapeutic modalities or disease

- 1 preventative agents as a function of biopolymer marker 2 presence or concentration; 3) treatment or prevention of a 3 disease state by formation of disease intervention modalities; 4) use of biopolymer markers or moieties 5 thereof as a means of elucidating therapeutically viable 6 agents, 5) instigation of a therapeutic immunological 7 response; and 6) synthesis of molecular structures related 8 to said biopolymer markers, moieties or variants thereof 9 which are constructed and arranged to therapeutically 10 intervene in said disease state. 11 12 Claim 36. The process for identifying therapeutic 13 avenues related to a disease state in accordance with 14 claim 35, wherein said treatment or prevention of a disease state by formation of disease intervention 15 16 modalities is the formation of biopolymer/ligand 17 conjugates which intervene at receptor sites to prevent, 18 delay or reverse a disease process. 19 Claim 37. The process for identifying therapeutic
- Claim 37. The process for identifying therapeutic avenues related to a disease state in accordance with claim 35, wherein said means of elucidating therapeutically viable agents includes use of a
- 24 bacteriophage peptide display library or a bacteriophage

1	antibody library.
2	-
3	Claim 38. A process for regulating a disease state
4	by controlling the presence or absence of a biopolymer
5	selected from the group consisting of sequence ID
6	RHHPEHFSGRPRE, RIRHHPEHFSGRPRE, RITGIIKYEKPGSPPRE,
7	(R) VDVIPVNLPGEHGQR(L) or at least one analyte thereof.
8	
9	